Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A servo track writer comprising:

a digital signal processor;

a clock head which reads a clock track from a disk surface to generate a clock signal that is used to provide interrupt signals to the digital signal processor;

a crystal which provides interrupt signals to the digital signal processor; and,

a switch to selectively provide interrupt signals to the digital signal processor from the clock head and the crystal.

2. (original) The servo track writer of claim 1, wherein the digital signal processor positions a transducer that writes spiral servo information onto the disk surface.

3. (original) The servo track writer of claim 1 further including a divide-by-M circuit to generate interrupt signals at an interrupt rate that is tied to the disk surface.

4. (original) The servo track writer of claim 3, wherein the interrupt rate is equal to a predetermined servo sample rate.

5. (original) The servo track writer of claim 3, wherein a predetermined servo sample rate divided by the interrupt rate equals a natural number.

6. (original) The servo track writer of claim 1 further including a clock head amplifier which amplifies the clock signal.

7. (original) The servo track writer of claim 6 further including a phase-locked loop which receives the amplified clock signal and generates a digital clock signal.

8. (original) The servo track writer of claim 7 further including a divide-by-M circuit to divide down the digital clock signal, wherein the digital clock signal is provided to the digital signal processor.

9. (previously presented) The servo track writer of claim 1, wherein a predetermined number of servo sectors per revolution are designed to be placed on the disk surface, wherein a predetermined number of interrupt signals are provided to the digital signal processor per revolution of the disk surface, and wherein the predetermined number of servo sectors per revolution divided by the predetermined number of interrupt signals provided to the digital signal processor per revolution equals a natural number.

10. (cancelled)

11. (currently amended) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor;

generating a spiral profile based upon a predetermined interrupt rate, wherein the profile includes a write portion, a post-write pad portion, a re-trace portion and a post-re-trace pad portion;

positioning a transducer over the disk surface using the servo track writer in a closed-loop manner, so that the transducer follows the spiral profile; and,

writing the spiral patterns in a random order about the disk surface.

12. (cancelled)

13. (previously presented) The method of claim 11 including the step of:

positioning the transducer over the disk surface under control of the digital signal processor.

14. (original) The method of claim 13, wherein the transducer is positioned based upon the interrupt signals provided to the digital signal processor.

15. (cancelled)

16. (cancelled)

17. (previously presented) The method of claim 11 including the step of:

writing one of the spiral patterns onto the disk surface by following the spiral profile.

18. (previously presented) The method of claim 11 including the step of:

writing the spiral patterns onto the disk surface by following a series of spiral profiles.

19. (cancelled)

20. (cancelled)

21. (previously presented) The method of claim 11, wherein the spiral patterns include synch marks and wherein synch marks along a particular radius are equally spaced.

22. (previously presented) The method of claim 11, wherein the spiral patterns include synch marks and wherein corresponding synch marks along different spirals are located on common radiuses.

23. (previously presented) A servo track writer comprising:

a digital signal processor;

a clock head which reads a clock track from a disk surface to generate an analog clock signal;

a clock head amplifier for amplifying the analog clock signal to generate an amplified clock signal;

circuitry for converting the amplified clock signal to a digital clock signal which is delivered to the digital signal processor to provide interrupt signals thereto;

a crystal which provides interrupt signals to the digital signal processor; and,

a switch to selectively provide interrupt signals to the digital signal processor from the clock head and the crystal.

24. (original) The servo track writer of claim 23 further including circuitry to divide down the digital clock signal before it is delivered to the digital signal processor.

25. (original) The servo track writer of claim 23, wherein the digital signal processor positions a transducer that writes spiral servo information onto the disk surface based upon the interrupt signals delivered thereto.

26. (cancelled)

27. (previously presented) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor; and,

writing the spiral patterns in a random order about the disk surface.

28. (previously presented) A method of writing servo information onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface using a clock head to generate interrupt signals;

providing a crystal for generating interrupt signals; and,

selectively providing interrupt signals to the digital signal processor from the clock head and the crystal.

29. (currently amended) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor;

generating a spiral profile based upon a predetermined interrupt rate;

positioning a transducer associated with the disk surface using the servo track writer in a closed-loop manner, so that the transducer follows the spiral profile; and

writing the spiral patterns in a random order about the disk surface.

30. (currently amended) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer that has a digital signal processor and an actuator arm, said method comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor; ~~and~~

generating a spiral profile based upon a predetermined interrupt rate, wherein the profile includes a write portion, a post-write pad portion, a re-trace portion and a post-re-trace pad portion; and

writing the spiral patterns in a random order about the disk surface.

31. (currently amended) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor;

generating a spiral profile based upon a predetermined interrupt rate, wherein the profile includes a write portion, a post-write pad portion, a re-trace portion and a post-re-trace pad portion;

positioning a transducer over the disk surface using the servo track writer in a closed-loop manner; and

writing the spiral patterns in a random order about the disk surface.

32. (previously presented) A method of writing servo information in spiral patterns onto a disk surface using a servo track writer having a digital signal processor comprising the steps of:

reading a clock track written onto the disk surface to generate interrupt signals;

providing the interrupt signals to the digital signal processor;

generating a spiral profile based upon a predetermined interrupt rate, wherein the profile includes a write portion, a post-write pad portion, a re-trace portion and a post-re-trace pad portion,

wherein the spiral patterns are written in a random order about the disk surface.

33. (previously presented) A servo track writer that writes servo information onto a disk surface comprising:

a digital signal processor;

a clock head which reads a clock track from the disk surface to generate a clock signal that is used to provide interrupt signals to the digital signal processor;

a crystal which provides interrupt signals to the digital signal processor; and,

a switch to selectively provide interrupt signals to the digital signal processor from the clock head and the crystal.

34. (previously presented) The servo track writer of claim 33, wherein the digital signal processor positions a transducer that writes spiral servo information onto the disk surface.

35. (previously presented) The servo track writer of claim 33 further including a divide-by-M circuit to generate interrupt signals at an interrupt rate that is tied to the disk surface.

36. (previously presented) The servo track writer of claim 35, wherein the interrupt rate is equal to a predetermined servo sample rate.

37. (previously presented) The servo track writer of claim 35, wherein a predetermined servo sample rate divided by the interrupt rate equals a natural number.

38. (previously presented) The servo track writer of claim 33 further including a clock head amplifier which amplifies the clock signal.

39. (previously presented) The servo track writer of claim 38 further including a phase-locked loop which receives the amplified clock signal and generates a digital clock signal.

40. (previously presented) The servo track writer of claim 39 further including a divide-by-M circuit to divide down the digital clock signal, wherein the digital clock signal is provided to the digital signal processor.

41. (previously presented) The servo track writer of claim 33, wherein a predetermined number of servo sectors per revolution are designed to be placed on the disk surface, wherein a predetermined number of interrupt signals are provided to the digital signal processor per revolution of the disk surface, and wherein the predetermined number of servo sectors per revolution divided by the predetermined number of interrupt signals provided to the digital signal processor per revolution equals a natural number.

42. (new) The method of claim 27 including the step of:

positioning the transducer over the disk surface under control of the digital signal processor.

43. (new) The method of claim 42, wherein the transducer is positioned based upon the interrupt signals provided to the digital signal processor.

44. (new) The method of claim 27 including the step of:

writing one of the spiral patterns onto the disk surface by following the spiral profile.

45. (new) The method of claim 27 including the step of:

writing the spiral patterns onto the disk surface by following a series of spiral profiles.

46. (new) The method of claim 27, wherein the spiral patterns include synch marks and wherein synch marks along a particular radius are equally spaced.

47. (new) The method of claim 27, wherein the spiral patterns include synch marks and wherein corresponding synch marks along different spirals are located on common radiuses.

48. (new) The method of claim 28 further including the steps of:

positioning a transducer using the digital signal processor; and,

writing spiral servo information onto the disk surface using the transducer.

49. (new) The method of claim 28 further including the step of:

generating interrupt signals at an interrupt rate that is tied to the disk surface.

50. (new) The method of claim 49, wherein the interrupt signals are generated using a divide-by-M circuit.

51. (new) The method claim 49, wherein the interrupt rate is equal to a predetermined servo sample rate.

52. (new) The method of claim 49, wherein a predetermined servo sample rate divided by the interrupt rate equals a natural number.

53. (new) The method of claim 28, wherein a predetermined number of servo sectors per revolution are designed to be placed on the disk surface, wherein a predetermined number of interrupt signals are provided to the digital signal processor per revolution of the disk surface, and wherein the predetermined number of servo sectors per revolution divided by the predetermined number of interrupt signals provided to the digital signal processor per revolution equals a natural number.

54. (new) The method of claim 28, wherein the servo information includes spiral patterns and wherein the spiral patterns are written sequentially about the disk surface.